

What is claimed is:

1. A system for measuring quality of a digital network, comprising:
a controller;
a test dialer;
a network component remote from said test dialer and said controller, said network component being in communication with said controller and said test dialer over the digital network; and
a testing function resident on said network component, said controller controlling said test dialer and said testing function to determine at least one quality selected from the group consisting of a voice quality, a call completion quality, a load capability quality, and any combinations thereof.
2. The system as in claim 1, wherein said network component is selected from the group consisting of a multimedia terminal adapter, a fiber node, an amplifier, a tap, and any combinations thereof.
3. The system as in claim 1, wherein said network component is a multimedia terminal adapter positioned at a point-of-service.
4. The system as in claim 3, wherein said testing function is configured to determine said at least one quality without outputting an output signal at said point-of-service.
5. The system as in claim 3, wherein said multimedia terminal adapter is an embedded adapter or a stand-alone adapter.
6. The system as in claim 1, wherein said testing function is configured to receive a call set up signal from said test dialer.

7. The system as in claim 1, wherein said testing function is configured to receive an audio signal from said test dialer and send a test packet representative of said audio signal to said controller, said controller being configured to calculate said at least one quality based at least in part on a comparison of said test packet to a reference file.
8. The system as in claim 7, wherein said reference file is resident on said controller and/or on said network component.
9. The system as in claim 8, wherein said network component receives said reference file from said test dialer.
10. The system as in claim 1, wherein said testing function is configured to receive a test packet from said test dialer, convert said test packet into a test audio signal, and send said test audio signal to said controller so that said controller can calculate said at least one quality based in part on a comparison of said test audio signal to a reference file.
11. The system as in claim 1, wherein said at least one quality comprises a voice quality selected from the group consisting of a Mean Opinion Score (MOS), a Perceptual Analysis / Measurement System (PAMS), a Perceptual Speech Quality Measurement (PSQM), a Perceptual Evaluation of Speech Quality (PESQ), and any combinations thereof.
12. A system for measuring quality on a digital network, comprising:
 - a controller;
 - a multimedia terminal adapter positioned at a point-of-service;
 - a testing function resident on said multimedia terminal adapter; and
 - a test dialer, said controller, said multimedia terminal adapter, and said test dialer being in communication over the digital network so that said testing function can receive one or more non-invasive test signals from said test dialer.

13. The system as in claim 12, wherein said one or more non-invasive test signals comprises at least one signal selected from the group consisting of a call set up signal, an audio signal, a test audio signal, a load test signal, and any combinations thereof.
14. The system as in claim 12, wherein said non-invasive test signal is an audio signal, said testing function converting said audio signal into a test packet and sending said test packet to said controller.
15. The system as in claim 14, wherein said controller measures a voice quality based in part on a comparison of said test packet to a reference file.
16. The system as in claim 15, wherein said reference file is resident on said controller or on said multimedia terminal adapter.
17. The system as in claim 12, wherein said multimedia terminal adapter has a first channel for receiving said non-invasive test signal.
18. The system as in claim 17, wherein said multimedia terminal adapter has a separate channel for sending and/or receiving a normal signal while said first channel is in use.
19. The system as in claim 12, wherein said non-invasive test signal is a call set up signal.
20. The system as in claim 12, wherein said non-invasive test signal is a test audio signal, said testing function receiving a test packet having said test audio signal, retrieving said test audio signal from said test packet, and sending said test audio signal to said controller.
21. The system as in claim 20, wherein said controller measures a voice quality based in part on a comparison of said test audio signal to a reference file.

22. A method for measuring quality on a digital network, comprising:
sending an audio signal across the digital network to point-of-service equipment having a testing function resident thereon;
generating a test packet at said point-of-service equipment, said test packet being representative of said audio signal as received at said point-of-service equipment; and
calculating a voice quality based at least in part on a comparison of said test packet to a reference file, said voice quality being calculated at a location other than said point-of-service equipment.
23. The method as in claim 22, wherein said comparison is performed at either said point-of-service equipment or at said location.
24. The method as in claim 22 wherein said test audio signal is non-invasive to said point-of-service equipment.
25. A method for testing load capacity of a digital network, comprising controlling a plurality of points-of-service in the digital network to send a load test signal across the digital network to a central controller at a location remote from said plurality of points-of-service.
26. The method as in claim 25, wherein said plurality of points-of-service are controlled to send said load test signal simultaneously with one another or within a predetermined period of one another.
27. A method for testing load capacity of a digital network, comprising controlling a central controller to send a load test signal across the digital network to each of plurality of points-of-service in the digital network, said central controller being remote from each of said plurality of points-of-service.
28. The method as in claim 27, wherein said controller sends said load test signal to each of said plurality of points-of-service simultaneously with one another or within a predetermined period of one another.